

1   **WHAT IS CLAIMED IS:**

- 2           1. A furnace residue washing method comprising the steps of:
- 3           collecting residue from a furnace;
- 4           cooling the residue by water and screening the residue by different dimension
- 5   sieves;
- 6           separating the screened residue into different iron contents by magnetism;
- 7           separating and depositing sand from the water;
- 8           crushing the screened residue of large dimension scale;
- 9           separating the screened residue of large dimension scale by different iron
- 10   contents by magnetism; and
- 11          recollecting separately the separated and screened residue of large dimension
- 12   scale.
- 13          2. The method as claimed in claim 1, wherein a sprinkling system is provided in
- 14   the screening step to provide water to cool the residue from the furnace.
- 15          3. The method as claimed in claim 1, wherein the residue is screened into
- 16   separated groups to respectively have dimensions of above 30mm, between 12-30mm,
- 17   between 8-12mm and below 8mm.
- 18          4. The method as claimed in claim 2, wherein the residue is screened into
- 19   separated groups to respectively have dimensions of above 30mm, between 12-30mm,
- 20   between 8-12mm and below 8mm.
- 21          5. The method as claimed in claim 1, wherein after the water is supplied, lime
- 22   powder is washed from the residue and mixed with the water.
- 23          6. The method as claimed in claim 4, wherein after the water is supplied, lime
- 24   powder is washed from the residue and mixed with the water.

1           7. The method as claimed in claim 6, wherein the water is recycled in a water  
2 tank.

3           8. The method as claimed in claim 1, wherein a grinding device is provided to  
4 refine the recollected residue.

5           9. The method as claimed in claim 2, wherein a grinding device is provided to  
6 refine the recollected residue.

7           10. The method as claimed in claim 3, wherein a grinding device is provided to  
8 refine the recollected residue.

9           11. The method as claimed in claim 4, wherein a grinding device is provided to  
10 refine the recollected residue.

11           12. The method as claimed in claim 5, wherein a grinding device is provided to  
12 refine the recollected residue.

13           13. The method as claimed in claim 6, wherein a grinding device is provided to  
14 refine the recollected residue.

15           14. The method as claimed in claim 7, wherein a grinding device is provided to  
16 refine the recollected residue.